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10/695,513	10/28/2003	Robert T. Love	CE10354R	5389

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EXAMINER	
GUZMAN, APRIL S	
ART UNIT	**PAPER NUMBER**
2618	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/695,513	LOVE ET AL.	
	Examiner	Art Unit	
	April S. Guzman	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/01/04,8/02/04,3/05/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statements submitted on 04/01/2004, 08/02/2004, and 03/05/2007 have been considered by the Examiner and made of record in the application file.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-14, 16-26, 28-36, 38-40, 45, and 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Luschi et al. (U.S. Patent Application Publication # 2003/0045288 A1)** in view of **Kadaba et al. (U.S. Patent # 7,158,504)**.

Consider **claim 1**, Luschi et al. a method for scheduling mobile station uplink transmissions by a base station (Abstract, Figure 1, [0014], and [0026]) comprising steps of:

receiving scheduling information from at least one mobile station of the plurality of mobile stations, wherein the scheduling information comprises at least one of a queue status and a power status of the at least one mobile station ([0015]-[0016], [0021]-[0022], [0042], [0047], and [0056]-[0057]);

selecting a mobile station of the plurality of mobile stations and determining an uplink channel scheduling assignment for the selected mobile station using at least one of the scheduling information and a link quality corresponding to the selected mobile station ([0027], [0045]-[0046], and [0054]-[0055]); and

transmitting the uplink channel scheduling assignment to the selected mobile station, wherein the uplink channel scheduling assignment comprises at least one of a transmission assignment, a maximum power margin target, a maximum power level target and transport format and resource-related information (TFRI) assignment ([0045]-[0046]).

However, Luschi et al. fail to teach a base station interference metric.

In the related art, Kadaba et al. teach a base station interference metric (column 1 lines 54-65, column 3 lines 22-30, column 7 lines 8-35, and column 7 lines 36-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Kadaba et al. into the teachings of Luschi et al. for the purpose of providing fast scheduling that can deliver significant gains via higher data rates/shorter frames and hence better aggregate throughput even after considering the higher overheads.

Consider **claim 2, as applied to claim 1 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the scheduling information is received via a reverse link control channel (Luschi et al. – [0047]).

Consider **claim 3, as applied to claim 1 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the power status corresponds to a power level of a Dedicated Physical Control Channel (DPCCH) (Luschi et al. – [0062]).

Consider **claim 4, as applied to claim 1 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the power status is based on a difference between a Dedicated Physical Control Channel (DPCCH) power level and a maximum power level supported by the mobile station (Luschi et al. – [0015]-[0016]).

Consider **claim 5, as applied to claim 1 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the queue status corresponds to a size of a data queue (Kadaba et al. – column 4 lines 56-67, and column 5 lines 1-17).

Consider **claim 6, as applied to claim 5 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the queue status further indicates a size of a layer 3 signaling queue (Kadaba et al. – column 4 lines 56-67, and column 5 lines 1-17).

Consider **claim 7, as applied to claim 5 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the queue status further indicates that a layer 3 signaling queue is non-empty (Kadaba et al. – column 4 lines 56-67, column 5 lines 1-17, column 9 lines 61-67, and column 10 lines 1-4).

Consider **claim 8, as applied to claim 1 above**, Luschi et al. as modified by Kadaba et al. further teach further comprising conveying base station interference information to the selected mobile station via a forward link control channel (Kadaba et al. – column 1 lines 54-65, column 3 lines 22-30, column 7 lines 8-35, and column 7 lines 36-65).

Consider **claim 9, as applied to claim 1 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the link quality is the link quality of an uplink channel from the selected mobile station (Luschi et al. – [0045]-[0047], and Kadaba et al. – column 4 lines 46-55, and column 5 lines 28-52).

Consider **claim 10, as applied to claim 1 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the link quality is the link quality of a downlink channel from a base station to the selected mobile station (Luschi et al. – [0045]-[0047], and Kadaba et al. – column 4 lines 46-55, and column 7 lines 8-61).

Consider **claim 11**, Luschi et al. a method for scheduling a mobile station transmission (Abstract, [0014], and [0026]) comprising:

scheduling, by a base station of a plurality of base stations, a mobile station of a plurality of mobile stations for a transmission interval based on scheduling information received from each mobile station of the plurality of mobile stations and further based on a link quality metric ([0015]-[0016], [0021]-[0022], [0027], [0042], [0045]-[0047], and [0054]-[0057]); and receiving, by the base station from the scheduled mobile station, a first transmission of data; which transmission of data is conveyed by the mobile station during the transmission interval and comprises transport format and resource-related information (TFRI) ([0046]-[0047], and [0049]-[0050]).

However, Luschi et al. fail to teach decoding the first transmission of the data; when the first transmission of the data is not successfully decoded, receiving, by the base station, communications from the scheduled mobile station corresponding to at least one retransmission of the data; combining, by the base station, each of the at least one retransmission of the data with the previously received data to produce combined data until the first to occur of a successful decoding of the combined data or a flushing of a Hybrid Automatic Repeat Request (H-ARQ) buffer; when one of the first transmission of data and the combined data is successfully decoded, conveying an acknowledgment to the mobile station; and in response to conveying the acknowledgment, flushing the H-ARQ buffer.

In the related art, Kadaba et al. teach decoding the first transmission of the data; when the first transmission of the data is not successfully decoded, receiving, by the base station, communications from the scheduled mobile station corresponding to at least one retransmission of the data; combining, by the base station, each of the at least one retransmission of the data with the previously received data to produce combined data until the first to occur of a successful decoding of the combined data or a flushing of a Hybrid Automatic Repeat Request (H-ARQ) buffer; when one of the first transmission of data and the combined data is successfully decoded, conveying an acknowledgment to the mobile station; and in response to conveying the acknowledgment, flushing the H-ARQ buffer (column 12 lines 14-42, or column 12 lines 43-67 and column 13 lines 1-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Kadaba et al. into the teachings of Luschi et al. for the purpose of providing fast scheduling that can deliver significant gains via higher data rates/shorter frames and hence better aggregate throughput even after considering the higher overheads.

Consider **claim 12, as applied to claim 11 above**, Luschi et al. as modified by Kadaba et al. further teach wherein flushing the Hybrid Automatic Repeat Request (H-ARQ) buffer comprises in response to conveying the acknowledgment, receiving an instruction to flush the H-ARQ buffer and flushing the buffer (Kadaba et al. - column 12 lines 14-42, or column 12 lines 43-67 and column 13 lines 1-7).

Consider **claim 13, as applied to claim 11 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the transport format and resource-related information (TFRI) is received via a reverse link control channel (Kadaba et al. – column 5 lines 52-67, and column 6 lines 1-15).

Consider **claim 14, as applied to claim 11 above**, Luschi et al. as modified by Kadaba et al. further teach comprising, when the combined data is not successfully decoded prior to an expiration of a timer, flushing the Hybrid Automatic Repeat Request (H-ARQ) buffer (Kadaba et al. – column 10 lines 27-67, column 11 lines 1-23, and column 12 lines 14-42).

Consider **claim 16, as applied to claim 11 above**, Luschi et al. as modified by Kadaba et al. further teach comprising: receiving a new data indicator; and flushing the Hybrid Automatic

Repeat Request (H-ARQ) buffer based on a state of the received data indicator (Kadaba et al. – column 6 lines 29-62, and column 12 lines 14-42).

Consider **claim 17, as applied to claim 11 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the scheduling information is received via a first reverse link control channel and the transport format and resource-related information (TFRI) is received via a second reverse link control channel (Luschi et al. – [0047]; Kadaba et al. – column 4 lines 46-55, column 5 lines 28-67, and column 6 lines 1-15).

Consider **claim 18, as applied to claim 11 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the scheduling information is received via a first reverse link control channel and the transport format and resource-related information (TFRI) is blindly detected by a receiving base station (Luschi et al. – [0047]; Kadaba et al. – column 4 lines 46-55, column 5 lines 28-67, and column 6 lines 1-15).

Consider **claim 19, as applied to claim 11 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the scheduling information comprises power status and queue status information (Luschi et al. - [0015]-[0016], [0021]-[0022], [0042], [0047], and [0056]-[0057]).

Consider **claim 20, as applied to claim 19 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the power status corresponds to a power level of a Dedicated Physical Control Channel (DPCCH) (Luschi et al. – [0062]).

Consider **claim 21, as applied to claim 19 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the power status is based on a difference between a Dedicated Physical Control Channel (DPCCH) power level and the maximum power level supported by the mobile station (Luschi et al. – [0015]-[0016]).

Consider **claim 22, as applied to claim 19 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the queue status corresponds to a size of a data queue (Kadaba et al. – column 4 lines 56-67, and column 5 lines 1-17).

Consider **claim 23, as applied to claim 22 above**, Luschi et al. as modified by Kadaba et al. further tea wherein the queue status further indicates a size of a layer 3 signaling queue (Kadaba et al. – column 4 lines 56-67, and column 5 lines 1-17).

Consider **claim 24, as applied to claim 22 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the queue status further indicates that a layer 3 signaling queue is non-empty (Kadaba et al. – column 4 lines 56-67, column 5 lines 1-17, column 9 lines 61-67, and column 10 lines 1-4).

Consider **claim 25, as applied to claim 11 above**, Luschi et al. as modified by Kadaba et al. further teach comprising conveying base station interference information to the selected mobile station via a forward link control channel (Kadaba et al. – column 1 lines 54-65, column 3 lines 22-30, column 7 lines 8-35, and column 7 lines 36-65).

Consider **clam 26, as applied to claim 25 above**, Luschi et al. as modified by Kadaba et al. further teach comprising mapping one or more sub-frames of the transmission interval to associated transport format and resource-related information (TFRI) (Kadaba et al. – column 5 lines 52-67, and column 6 lines 1-28).

Consider **claim 28, as applied to claim 11 above**, Luschi et al. as modified by Kadaba et al. further teach wherein scheduling comprises informing the mobile station of a number of sub-frames on which the mobile station may transmit and a location of the sub-frames in the transmission interval (Kadaba et al. – column 5 lines 17-28, column 5 lines 42-52, column 6 lines 15-28, column 6 lines 63-67, and column 7 lines 1-8).

Consider **claim 29**, Luschi et al. a method for transmitting data by a mobile station (Abstract, Figure 1, [0014], and [0026]) comprising steps of:

transmitting data in a first reverse link channel [0047].

However, Luschi et al. fail to teach transmitting corresponding transport format and resource-related information (TFRI) in a second reverse link channel, wherein the TFRI can be used to demodulate and decode the transmitted data.

In the related art, Kadaba et al. teach transmitting corresponding transport format and resource-related information (TFRI) in a second reverse link channel, wherein the TFRI can be used to demodulate and decode the transmitted data (column 4 lines 46-55, column 5 lines 28-67, and column 6 lines 1-15).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Kadaba et al. into the teachings of Luschi et al. for the purpose of providing fast scheduling that can deliver significant gains via higher data rates/shorter frames and hence better aggregate throughput even after considering the higher overheads.

Consider **claim 30, as applied to claim 29 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the transport format and resource-related information (TFRI) is transmitted via a second reverse link control channel (Kadaba et al. - column 4 lines 46-55, column 5 lines 28-67, and column 6 lines 1-15).

Consider **claim 31, as applied to claim 29 above**, Luschi et al. as modified by Kadaba et al. further teach comprising: receiving a scheduling assignment that comprises interference information associated with a base station; and determining the transport format and resource-related information (TFRI) based on the received interference information (Kadaba et al. - column 1 lines 54-65, column 3 lines 22-30, column 4 lines 36-55, column 5 lines 28-67, column 6 lines 1-15, column 7 lines 8-35, and column 7 lines 36-65).

Consider claim 32, as applied to claim 31 above, Luschi et al. as modified by Kadaba et al. further teach wherein receiving a scheduling assignment comprises receiving a plurality of scheduling assignments from a plurality of base stations, wherein each scheduling assignment of the plurality of scheduling assignments is associated with interference information, and wherein the method further comprises choosing a scheduling assignment of the plurality of scheduling assignments based on the associated interference information (Kadaba et al. – column 7 lines 8-67).

Consider **claim 33, as applied to claim 32 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the interference information associated with each scheduling assignment comprises transport format and resource-related information (TFRI) (Kadaba et al. – column 7 lines 8-67).

Consider **claim 34, as applied to claim 32 above**, Luschi et al. as modified by Kadaba et al. further teach comprising determining the corresponding transport format and resource-related information (TFRI) transmitted in the second reverse link channel based on the TFRI of only one base station of the plurality of base stations (Kadaba et al. – column 7 lines 8-67).

Consider **claim 35, as applied to claim 31 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the scheduling assignment is received via a forward link control channel (Kadaba et al. – column 7 lines 8-67).

Consider **claim 36, as applied to claim 29 above**, Luschi et al. as modified by Kadaba et al. further teach comprising: receiving interference information from a plurality of base stations; and determining the corresponding transport format and resource-related information (TFRI) transmitted in the second reverse link channel based on interference information of only one base station of the plurality of base stations (Kadaba et al. - column 1 lines 54-65, column 3 lines 22-30, column 4 lines 36-55, column 5 lines 28-67, column 6 lines 1-15, column 7 lines 8-35, and column 7 lines 36-65).

Consider **claim 38, as applied to claim 29 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the first reverse link channel and the second reverse link channel are time multiplexed on a same physical control channel such that, in a given transmission interval, either a first reverse link channel ten (10) millisecond (ms) frame format is used or a second reverse link channel two (2) millisecond (ms) frame format is used (Kadaba et al. – column 5 lines 28-67, and column 6 lines 1-28).

Consider **claim 39, as applied to claim 38 above**, Luschi et al. as modified by Kadaba et al. further teach wherein when there is not a scheduled transmission interval then the first reverse link channel ten (10) millisecond (ms) frame format is used and when there is a scheduled transmission interval then the second reverse link channel two (2) millisecond (ms) frame format is used (Kadaba et al. – column 5 lines 28-67, column 6 lines 1-28, column 7 lines 8-61, and column 12 lines 14-42).

Consider **claim 40, as applied to claim 29 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the second reverse link channel has a first part and a second part, wherein the second part can be decoded separate from the first part, and wherein the first part comprises block size and modulation and coding information and the second part comprises Hybrid Automatic Repeat Request (H-ARQ) and Incremental Redundancy version information (Luschi et al. – [0047], and [0050]; and Kadaba et al. – column 4 lines 34-67, column 5 lines 1-17, column 5 lines 52-67, column 6 lines 1-15, and column 6 lines 28-62).

Consider **claim 45**, Luschi et al. a method for controlling communications with a mobile station by a base station (Abstract, Figure 1, [0014], and [0026]) comprising steps of:

storing, by the base station, traffic data from the mobile station in a traffic data buffer ([0047], and [0056]).

However, Luschi et al. fail to teach transmitting, by the base station, first control data to the mobile station on a downlink control channel; upon transmitting the first control data, starting, by the base station, a timer; and when a predetermined period of time expires prior to receiving second control data from the mobile station on an uplink control channel, flushing the traffic data buffer.

In the related art, Kadaba et al. teach transmitting, by the base station, first control data to the mobile station on a downlink control channel (column 7 lines 8-61);

upon transmitting the first control data, starting, by the base station, a timer; and when a predetermined period of time expires prior to receiving second control data from the mobile station on an uplink control channel, flushing the traffic data buffer (column 10 lines 27-67, column 11 lines 1-13, column 12 lines 14-67, and column 13 lines 1-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Kadaba et al. into the teachings of Luschi et al. for the purpose of providing fast scheduling that can deliver significant gains via higher data rates/shorter frames and hence better aggregate throughput even after considering the higher overheads.

Consider **claim 50**, Luschi et al. a method for controlling communications with a mobile station by a base station (Abstract, Figure 1, [0014], and [0026]).

However, Luschi et al. fail to teach transmitting, by the base station, first control data to the mobile station on a downlink control channel; upon transmitting the first control data, starting, by the base station, a timer; and when a predetermined period of time expires prior to receiving second control data from the mobile station on an uplink control channel, deallocating, by the base station, demodulation resources allocated to a first uplink control channel associated with the mobile station while maintaining allocation of demodulation resources associated with a second uplink control channel that is associated with the mobile station.

In the related art, Kadaba et al. teach transmitting, by the base station, first control data to the mobile station on a downlink control channel (column 7 lines 8-61);

upon transmitting the first control data, starting, by the base station, a timer; and when a predetermined period of time expires prior to receiving second control data from the mobile station on an uplink control channel, deallocating, by the base station, demodulation resources allocated to a first uplink control channel associated with the mobile station while maintaining allocation of demodulation resources associated with a second uplink control channel that is associated with the mobile station (column 10 lines 27-67, column 11 lines 1-13, column 12 lines 14-67, and column 13 lines 1-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Kadaba et al. into the teachings of Luschi et al. for the purpose of providing fast scheduling that can deliver significant gains via higher data rates/shorter frames and hence better aggregate throughput even after considering the higher overheads.

Consider **claim 51**, Luschi et al. teach a method for selecting a scheduling assignment by a mobile station comprising steps of: receiving a scheduling assignment a base station.

However, Luschi et al. fail to teach a plurality of active set base stations to produce a plurality of scheduling assignments; and selecting a scheduling assignment of the received plurality of scheduling assignments.

In the related art, Kadaba et al. teach a plurality of active set base stations to produce a plurality of scheduling assignments; and selecting a scheduling assignment of the received plurality of scheduling assignments (column 7 lines 8-61, column 8 lines 38-67, and column 9 lines 1-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Kadaba et al. into the teachings of Luschi et al. for the purpose of providing fast scheduling that can deliver significant gains via higher data rates/shorter frames and hence better aggregate throughput even after considering the higher overheads.

Consider **claim 52, as applied to claim 51 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the scheduling assignments are received via a forward link control channel (Kadaba et al. – column 7 lines 8-67).

Claims 15, 27, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Luschi et al. (U.S. Patent Application Publication # 2003/0045288 A1)** in view of **Kadaba et al. (U.S. Patent # 7,158,504)**, and further in view of **Gopalakrishnan et al. (U.S. Patent # 6,836,666)**.

Consider **claim 15, as applied to claim 11 above**, Luschi et al. as modified by Kadaba et al. teach first dedicated physical channel for power control and flushing the Hybrid Automatic Repeat Request (H-ARQ) buffer.

However, Luschi et al. as modified by Kadaba et al. fail to teach comprising: determining a reverse link power control metric; comparing the reverse link power control metric to an inner loop power control setpoint; and the reverse link power control metric compares unfavorably with the inner loop power control setpoint.

In the related art, Gopalakrishnan et al. teach determining a reverse link power control metric; comparing the reverse link power control metric to an inner loop power control setpoint; and the reverse link power control metric compares unfavorably with the inner loop power control setpoint (column 4 lines 43-67, column 5 lines 1-29, column 6 lines 24-43, column 7 lines 42-67, column 8 lines 1-23, and column 9 lines 12-65)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Gopalakrishnan et al. into the teachings of

Luschi et al. as modified by Kadaba et al. for the purpose of providing a balance between network throughput and user level QoS via a combination of fast rate adaptation and centralized scheduling at the BS in addition to enabling fast scheduling and enables the use of advanced techniques such as H-ARQ and various flavors of incremental redundancy and are aimed at improving network and user performance.

Consider **claim 27, as applied to claim 25 above**, Luschi et al. as modified by Kadaba et al. teach conveying base station interference information to the selected mobile station via a forward link control channel.

However, Luschi et al. as modified by Kadaba et al. fail to teach comprising determining a maximum Enhanced Uplink Dedicated Transport Channel (EUDCH) to Dedicated Physical Control Channel (DPCCH) (DPPCH) power ratio for the mobile station based on base station interference information.

In the related at, Gopalakrishnan et al. teach comprising determining a maximum Enhanced Uplink Dedicated Transport Channel (EUDCH) to Dedicated Physical Control Channel (DPCCH) (DPPCH) power ratio for the mobile station based on base station interference information (column 4 lines 43-67, column 5 lines 1-29, column 7 lines 42-67, column 8 lines 1-23, and column 9 lines 12-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Gopalakrishnan et al. into the teachings of Luschi et al. as modified by Kadaba et al. for the purpose of providing a balance between network throughput and user level QoS via a combination of fast rate adaptation and centralized scheduling at the BS in addition to enabling fast scheduling and enables the use of advanced techniques such as H-ARQ and various flavors of incremental redundancy and are aimed at improving network and user performance.

Consider **claim 37, as applied to claim 36 above**, Luschi et al. as modified by Kadaba et al. teach receiving interference information from a plurality of base stations; and determining the corresponding transport format and resource-related information (TFRI) transmitted in the second reverse link channel based on interference information of only one base station of the plurality of base stations.

However, Luschi et al. as modified by Kadaba et al. fail to teach wherein determining comprises determining the transport format and resource-related information (TFRI) based on a base station with a largest Enhanced Uplink Dedicated Transport Channel (EUDCH) to Dedicated Physical Control Channel (DPCCH) (DPPCH) power ratio.

In the related art, Gopalakrishnan et al. teach wherein determining comprises determining the transport format and resource-related information (TFRI) based on a base station with a largest Enhanced Uplink Dedicated Transport Channel (EUDCH) to Dedicated Physical Control Channel (DPCCH) (DPPCH) power ratio (column 4 lines 43-67, column 5 lines 1-29, column 7 lines 42-67, column 8 lines 1-23, and column 9 lines 12-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Gopalakrishnan et al. into the teachings of Luschi et al. as modified by Kadaba et al. for the purpose of providing a balance between network throughput and user level QoS via a combination of fast rate adaptation and centralized scheduling at the BS in addition to enabling fast scheduling and enables the use of advanced techniques such as H-ARQ and various flavors of incremental redundancy and are aimed at improving network and user performance.

Claims 41-44, and 46-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kadaba et al. (U.S. Patent # 7,158,504)** in view of **Gopalakrishnan et al. (U.S. Patent # 6,836,666)**.

Consider **claim 41**, Kadaba et al. a method for controlling communications with a mobile station by a base station (Abstract, and column 3 lines 8-30) comprising steps of:

storing, by the base station, traffic data from the mobile station in a traffic data buffer (column 4 lines 56-67, and column 5 lines 1-17);

determining a link quality metric at the base station (column 5 lines 18-51); and

flushing the traffic data buffer (column 12 lines 14-67, and column 13 lines 1-7).

However, Kadaba et al. fail to teach comparing the link quality metric to a threshold; and the link quality metric compares unfavorably with the threshold.

In the related art, Gopalakrishnan et al. teach comparing the link quality metric to a threshold; and the link quality metric compares unfavorably with the threshold (column 4 lines 43-67, column 5 lines 1-29, and column 6 lines 24-43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Gopalakrishnan et al. into the teachings of Kadaba et al. for the purpose of providing a balance between network throughput and user level QoS via a combination of fast rate adaptation and centralized scheduling at the BS in addition to enabling fast scheduling and enables the use of advanced techniques such as H-ARQ and various flavors of incremental redundancy and are aimed at improving network and user performance.

Consider **claim 42, as applied to claim 41 above**, Kadaba et al. as modified by Gopalakrishnan et al. further teach wherein the link quality metric comprises a reverse link power control metric and wherein comparing comprises comparing the reverse link power control metric to an inner loop power control setpoint (Gopalakrishnan et al. - column 4 lines 43-67, column 5 lines 1-29, column 6 lines 24-43, column 7 lines 42-67, column 8 lines 1-23, and column 9 lines 12-65).

Consider **claim 43, as applied to claim 42 above**, Kadaba et al. as modified by Gopalakrishnan et al. further teach wherein the threshold comprises a first threshold and wherein the link quality metric compares unfavorably with a threshold when a ratio of the reverse link power control metric to an inner loop power control setpoint exceeds a second threshold (Gopalakrishnan et al. - column 4 lines 43-67, column 5 lines 1-29, column 6 lines 24-43, column 7 lines 42-67, column 8 lines 1-23, and column 9 lines 12-65).

Consider **claim 44, as applied to claim 43 above**, Kadaba et al. as modified by Gopalakrishnan et al. further teach wherein the link quality metric is computed based on a reverse link pilot signal (Kadaba et al. – column 5 lines 28-51; Gopalakrishnan et al. - column 4 lines 43-67, column 5 lines 1-29, column 6 lines 24-43, column 7 lines 42-67, column 8 lines 1-23, and column 9 lines 12-65).

Consider **claim 46**, Kadaba et al. teach a method for controlling communications with a mobile station by a base station (Abstract, and column 3 lines 8-30) comprising steps of:

determining, by the base station, a link quality metric at the base station (column 5 lines 18-51); and

deallocating, by the base station, demodulation resources allocated to a first uplink control channel associated with the mobile station while maintaining allocation of demodulation resources associated with a second uplink control channel that is associated with the mobile station (column 12 lines 14-67, and column 13 lines 1-7).

However, Kadaba et al. fail to teach comparing, by the base station, the link quality metric to a threshold; and the link quality metric compares unfavorably with the threshold.

In the related art, Gopalakrishnan et al. teach comparing, by the base station, the link quality metric to a threshold; and the link quality metric compares unfavorably with the threshold (column 4 lines 43-67, column 5 lines 1-29, and column 6 lines 24-43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Gopalakrishnan et al. into the teachings of Kadaba et al. for the purpose of providing a balance between network throughput and user level QoS via a combination of fast rate adaptation and centralized scheduling at the BS in addition to enabling fast scheduling and enables the use of advanced techniques such as H-ARQ and various flavors of incremental redundancy and are aimed at improving network and user performance.

Consider **claim 47, as applied to claim 46 above**, Kadaba et al. as modified by Gopalakrishnan et al. further teach wherein the link quality metric comprises a reverse link power control metric and wherein comparing comprises comparing the reverse link power control metric to an inner loop power control setpoint (Gopalakrishnan et al. - column 4 lines 43-

67, column 5 lines 1-29, column 6 lines 24-43, column 7 lines 42-67, column 8 lines 1-23, and column 9 lines 12-65).

Consider **claim 48, as applied to claim 47 above**, Kadaba et al. as modified by Gopalakrishnan et al. further teach wherein the threshold comprises a first threshold and wherein the link quality metric compares unfavorably with a threshold when a ratio of the reverse link power control metric to an inner loop power control setpoint exceeds a second threshold (Gopalakrishnan et al. - column 4 lines 43-67, column 5 lines 1-29, column 6 lines 24-43, column 7 lines 42-67, column 8 lines 1-23, and column 9 lines 12-65).

Consider **claim 49, as applied to claim 48 above**, Kadaba et al. as modified by Gopalakrishnan et al. further teach wherein the link quality metric is computed based on a reverse link pilot signal (Kadaba et al. – column 5 lines 28-51; Gopalakrishnan et al. - column 4 lines 43-67, column 5 lines 1-29, column 6 lines 24-43, column 7 lines 42-67, column 8 lines 1-23, and column 9 lines 12-65).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (see PTO-892).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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06/20/07

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